DE/AFS/SF

INTERSTATE
CONCRETE & ASPHALT

March 13, 2007

RECEIVED
MAR 14 2007
DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE A Q PROGRAM

Mike Simon
Idaho Dept. of Environmental Quality
Air Quality Division
1410 N. Hilton
Boise, ID 83706

Subject: Facility ID No. 777-00403 Dover Concrete Batch Plant
Denial Letter Response

Dear Mr. Simon

This is in response to your denial letter dated March 6, 2007 regarding the above facility. Please find enclosed two (2) copies of our 15-Day Pre-Permit Construction Approval Application for Dover, ID along with two (2) Air Modeling CD's. It is our request that we be allowed to start construction prior to obtaining the PTC for this site.

Item #2 of your letter requests a copy of the public meeting notice which is enclosed along with an affidavit of publication.

I have been advised by Mark Peterson with Aspen that items 3 & 4 have been addressed by conversations with DEQ staff.

Please contact me if there are any questions at 208.666.6116

Sincerely,

Corky Witherwax
Aggregate Sales/Credit
Environmental Manager

AFFIDAVIT OF PUBLICATION

STATE OF IDAHO)
) ss.
County of Bonner)

Sherilyn Jones, being first duly sworn on oath, deposes and states:

1. I am a citizen of the United States of America, over the age of 18 years, a resident of Bonner County, Idaho, and am not a party to the proceedings referred to in the attached Public Meeting
My business address is P.O. Box 159, Sandpoint, Idaho.

2. I am the Bookkeeper of the Bonner County Daily Bee, a newspaper of general publication in Bonner County, Idaho;

3. Said newspaper has been continuously and uninterruptedly published in Bonner County, Idaho during a period of 12 months prior to the first publication of said Notice, and thereafter.

4. The attached Notice was published in the regular and entire issue of the Bonner County Daily Bee for a period of 1 ~~consecutive weeks~~, commencing on the 7 day of Mar, 2007, and ending on the 7 day of Mar, 2007.

Sherilyn Jones

SUBSCRIBED AND SWORN to before me, the undersigned Notary Public, this 8 day of March, 2007.

Carolyn L. Inge
Notary Public
Residing at: Sandpoint
Comm. Exp.: 8/12

CAROLYN L. INGE
NOTARY
PUBLIC
STATE OF IDAHO

8493

DE/AFS/SF

RECEIVED

MAR 14 2007

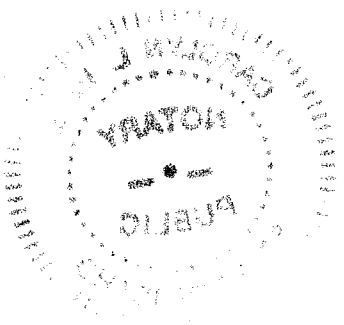
DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE A Q PROGRAM

LEGAL NOTICE
PUBLIC MEETING
ANNOUNCEMENT

Interstate Concrete & Asphalt Co. Pre-Permit Construction

An informational meeting will be held at the Quality Inn Meeting Room at 807 N. 5th Ave. Sandpoint, ID from 9:00 AM to 10:00 AM on March 19, 2007 in accordance with the Rules for the Control of Air Pollution in Idaho. Idaho Administrative Code IDAPA 58.01.01.213.02 - Permit to Construct Procedures for Pre-Permit Construction. The purpose of the meeting is to fulfill the air quality pre-permit construction requirement per IDAPA – 58.01.01.213.02 and inform the general public of Interstate Concrete & Asphalts intention to locate a concrete batch plant at 23813 Hwy 2, Dover, Id.

Legal SNP# 8493
March 7, 2007



Interstate Concrete and Asphalt Company
Concrete Batch Plant

Air Quality
15-Day Pre-Permit Construction Approval Application
Dover Batch Plant

Aspen File: ICA07002

Prepared for:

Interstate Concrete and Asphalt Company
845 West Kathleen Avenue
Coeur d'Alene, Idaho 83814

Prepared by:

Aspen Consulting & Engineering, Inc.
P.O. Box 4822
Helena, MT 59604

March 8, 2007

TABLE OF CONTENTS

SECTION **PAGE**

TABLE OF CONTENTS (CONTINUED)

TABLE OF CONTENTS (CONTINUED)

LIST OF TABLES

APPENDICES

1.0 PROCESS DESCRIPTION

Interstate Concrete and Asphalt Company (ICA) is proposing to permit a portable concrete batch plant to be originally located in Bonner County, Idaho and will be known as the Dover Plant.

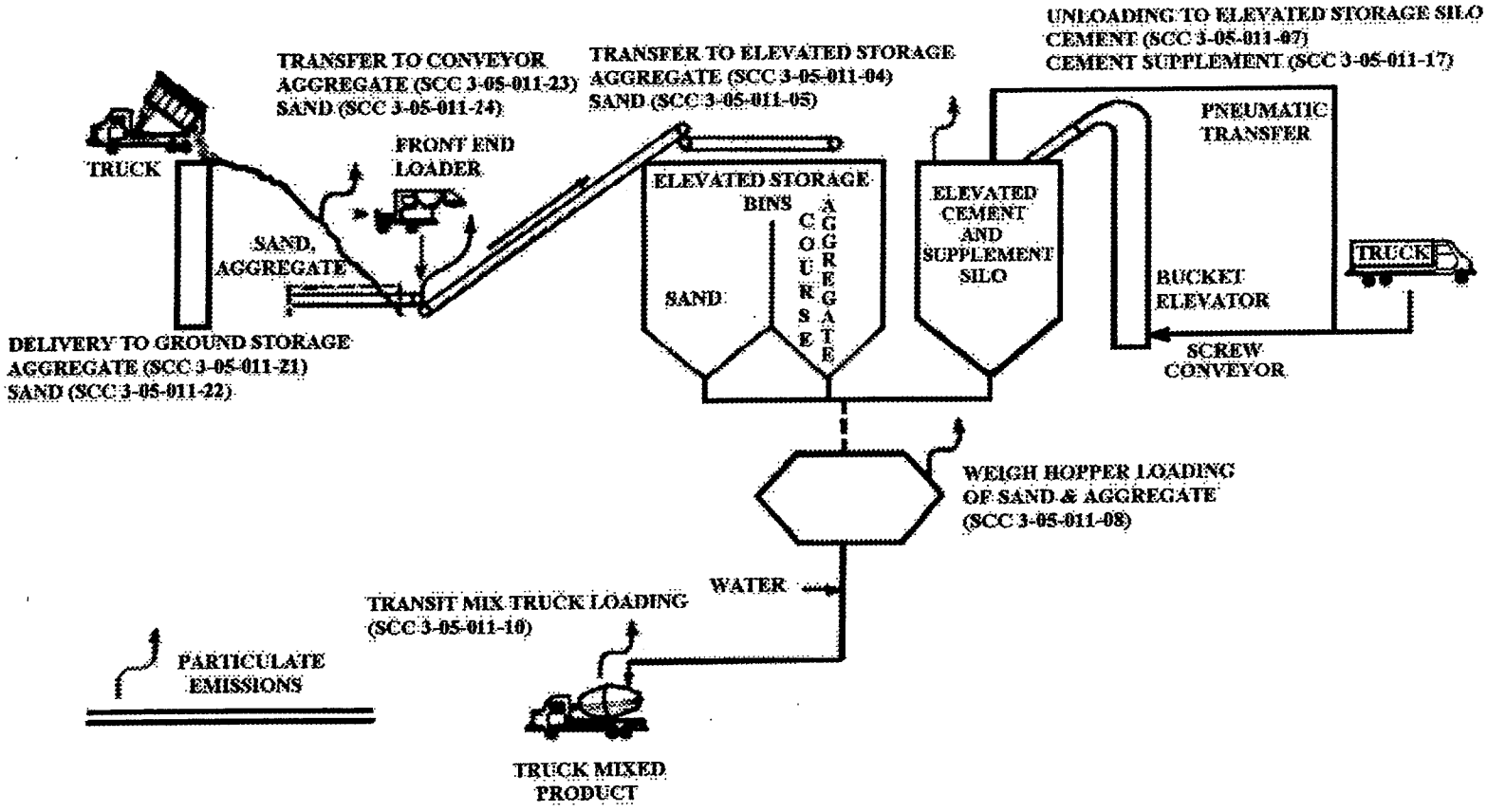
ICA proposes to permit a dry batch concrete plant. The plant will have a maximum capacity of 150 cubic yards of concrete per hour. ICA proposes a daily limit of 1,800 yd^3/hr of concrete and an annual limit of 250,000 yd^3/yr of concrete.

Raw materials will arrive at the site by truck. Raw materials will then be dumped onto storage piles or conveyed into storage silos. Sand and course aggregate will be stored on the ground in storage piles. Cement and fly ash will be stored on-site in silos. These raw materials will be combined in a weigh hopper to form the final concrete product.

Upon demand for concrete, the raw materials will be weighed and dumped into a cement truck in the appropriate proportions. Water will then be added and mixed with the sand, aggregate, cement, and fly ash for off-site delivery of the final product. Figure 1 provides a general process flow diagram.

Idaho Department of Environmental Quality (DEQ) Standard Permit to Construct application forms are provided in Appendix A.

2.0 PROCESS FLOW DIAGRAM



3.0 APPLICABLE REQUIREMENTS

This section outlines the applicable requirements to the facility and applicability to specific emitting units when appropriate. Demonstration of compliance is mandated by IDAPA 58.01.01.213.c

3.1 FEDERAL RULES

No relevant federal rules not already addressed by IDAPA rules are applicable.

3.2 IDAHO ADMINISTRATIVE PROCEDURES ACT – DEPARTMENT OF ENVIRONMENTAL QUALITY – AIR POLLUTION CONTROL - 58.01.01

3.2.1 SECTION 123 - CERTIFICATION OF DOCUMENTS

This rule requires that all reports, applications, data, etc. submitted to the Department shall contain a certification by the responsible official that, based on information and belief formed after reasonable inquiry, the statements and information are true, accurate, and complete.

ICA has included a certification by the responsible official on the application forms included with this submittal in Appendix A.

3.2.2 SECTION 128 - CONFIDENTIAL INFORMATION

This rule requires that all information submitted becomes public information unless it is submitted under a trade secret claim.

ICA is not submitting any confidential information.

3.2.3 SECTION 156 -TOTAL COMPLIANCE

When more than one section of the Idaho air quality rules applies, all sections must be met for total compliance unless otherwise specified in the rules.

ICA will comply with all applicable rules.

3.2.4 SECTION 210 - DEMONSTRATION OF PRECONSTRUCTION COMPLIANCE WITH TOXIC STANDARDS

Section 210 et. seq. provides the procedures for which a facility seeking a permit to construct shall use to demonstrate compliance with air toxic standards. An analysis has been conducted using these standards and is included in Section 7.0.

Affected Units:

1. Cement Silo
2. Flyash Silo
3. Truck Mix Loading

3.2.5 SECTION 223 - EXEMPTION CRITERIA, RECORDKEEPING, AND REPORTING FOR TOXIC AIR POLLUTANT EMISSIONS

No permit to construct for toxic air pollutants is required if the facility meets the exemption criteria listed in this rule. Exemption status also requires reporting requirements.

ICA is not applying for an exemption under this rule. Instead, ICA is complying with Section 210 provisions for air toxics in the permit application process (See Section 7.0).

3.2.6 SECTION 226 - PAYMENT OF FEES FOR PERMITS TO CONSTRUCT

Section (1) of this rule provides the address to send payment for the permit to construct application fee.

Section (2) states that no permit to construct application will be processed and no permit issued by the department until the permit processing fee has been paid.

ICA has submitted the appropriate processing fee.

3.2.7 SECTION 577 -AMBIENT AIR QUALITY STANDARDS FOR SPECIFIC AIR POLLUTANTS

This rule specifies the ambient air quality standards for PM_{10}, Sulfur Oxides, Ozone, Nitrogen Dioxide, Carbon Monoxide, Flourides, and Lead.

ICA will comply with these standards. Only PM_{10} is proposed to increase by this project and therefore no further demonstration was necessary for the remaining pollutants. The appropriate modeling results are included in Section 7.0.

3.2.8 SECTION 578 - DESIGNATION OF ATTAINMENT, UNCLASSIFIABLE, AND NONATTAINMENT AREAS

This rule establishes the procedures for designating air quality status for pollutants and the associated boundaries. The rule requires no direct action by the applicant; however, this rule is the basis for the establishment of the nonattainment status for pollutants, which determines the types of information required by the Department. ICA will supply all relevant data if ever required.

3.2.9 SECTION 585 -TOXIC AIR POLLUTANTS NON-CARCINOGENIC INCREMENTS

This rule establishes the screening emission levels (ELs), and the acceptable ambient concentrations (AACs) for non-carcinogens. AACs are based on a 24-hour average concentration. ICA has conducted an analysis showing compliance with this rule and is included in Section 7.0.

3.2.10 SECTION 586 - TOXIC AIR POLLUTANTS CARCINOGENIC INCREMENTS

This rule establishes the screening emission levels (ELs), and the acceptable ambient concentrations (AACs) for carcinogens. AACCs are based on an annual average concentration. ICA has conducted an analysis showing compliance with this rule and is included in Section 7.0.

3.2.11 SECTION 590 - NEW SOURCE PERFORMANCE STANDARDS

This rule mandates that sources comply with the New Source Performance Standards listed in 40 CFR Part 60. No NSPS regulation has been promulgated for Batch Cement Plants.

3.2.12 SECTION 591 -NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

The owner or operator of any stationary source must comply with 40 CFR 61 and 40 CFR 63 as applicable to the stationary source. ICA is not a major source of hazardous air pollutants and therefore these rules do not apply.

3.2.13 SECTION 625 -VISIBLE EMISSIONS

According to this rule, a person shall not discharge any pollutant into the atmosphere from any point of emission for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period which is greater than twenty percent (20%) opacity as determined by this section. Exempted sources are allowed forty percent (40%) opacity. Opacity is determined by EPA method 9.

ICA has no exempted sources and will comply with the 20 percent opacity rule.

3.2.14 SECTION 650 - RULES FOR THE CONTROL OF FUGITIVE EMISSIONS

The purpose of this rule is to require that all reasonable precautions are taken to prevent fugitive dust. Section 651 details control measures.

Applicable sources include: Paved and unpaved roadways.

3.2.15 SECTION 651 - GENERAL RULES

This section outlines procedures for controlling fugitive dust including the use of water sprays, chemical dust suppressants, covering of trucks, road paving, and removal of materials.

ICA will utilize water sprays on storage piles, and on traveled roadways within the plant boundary if or when a fugitive dust problem is observed.

3.2.16 SECTION 675 - FUEL BURNING EQUIPMENT – PARTICULATE MATTER

This section merely states that the purpose of sections 676-681 is to establish particulate matter emission standard for fuel burning equipment. ICA does not have any fuel burning sources and this section is not applicable.

3.2.17 SECTION 676 - STANDARDS FOR NEW SOURCES

A person shall not discharge into the atmosphere from any fuel burning equipment with a rated input capacity of 10 Million Btu's per hour or more, and commencing operation on or after October 1, 1979 particulate matter in excess of the amounts shown in the rule.

ICA does not have any fuel burning sources proposed for this project and therefore this rule is not applicable.

3.2.18 SECTION 700 -PARTICULATE MATTER – PROCESS WEIGHT LIMITATIONS

This section states that sections 701 through 703 establish particulate matter limits for process equipment. ICA will comply with applicable standards.

3.2.19 SECTION 701 - PARTICULATE MATTER -- NEW EQUIPMENT PROCESS WEIGHT LIMITATIONS

This section sets particulate limits for sources which commence operation on or after October 1, 1979. The particulate limit is set by the equation presented in the section.

Affected Units: Process Fugitives

ICA will comply with the standard.

3.2.20 SECTION 702 - PARTICULATE MATTER -- EXISTING EQUIPMENT PROCESS WEIGHT LIMITATIONS

This section sets particulate limits for sources which were in operation prior to October 1, 1979. The particulate limit is set by the equation presented in the section.

ICA has no equipment which meet this criteria and therefore this section is not applicable.

3.2.21 SECTION 775 - RULES FOR THE CONTROL OF ODORS

The purpose of this section is to control odorous emissions from all sources for which no gaseous control rules apply. ICA's emissions are regulated by other ambient air quality standards and therefore this rule does not apply.

4.0 POTENTIAL TO EMIT

Emissions were calculated for both criteria and toxic pollutants. The following sections describe the methodologies, references, and results.

4.1 CRITERIA POLLUTANTS

Potential emissions from ICA's Dover portable concrete batch plant were determined using the EPA document AP-42. Section 11.12-2 (6/06), emission factors for concrete batching, and Section 13.2.4 for material handling were used to calculate potential particulate matter (PM10) emissions.

PM_{10} fugitive emissions are controlled using water sprays. Aggregate and sand handling are assumed to have a 75% control because the aggregate and sand material are wet as delivered and ICA will utilize watering when fugitives are observed. The truck mix concrete loadout is controlled by a rubber boot fitting and any dust being redirected back to the weigh-hopper where baghouse control exists. A 95% control was assumed for the truck loadout.

Table 4-1 presents a summary of the concrete batch plant emissions inventory. A more detailed emissions inventory spreadsheet is included in Appendix B.

TABLE 4-1
EMISSIONS SUMMARY
CONCRETE BATCH PLANT
INTERSTATE CONCRETE AND ASPHALT CORP.
DOVER PORTABLE

Emissions Source	Controlled PM_{10} Potential Emissions (tons/yr)
Aggregate Dump to Ground	0.095
Sand Dump to Ground	0.022
Aggregate Dump to Conveyor	0.095
Sand Dump to Conveyor	0.022
Aggregate Conveyor to Elevated Storage	0.095
Sand Conveyor to Elevated Storage	0.022
Cement Silo Loading	0.010
Weigh Hopper Loading	0.025
Fly Ash Silo Unloading	0.022
Truck mix loading	0.490
Total:	**0.90**

Notes:
tons/yr Tons per Year
PM_{10} Particulate Matter with an aerodynamic diameter less than 10 microns

4.2 TOXIC AIR POLLUTANTS

Toxic air pollutants (TAPs) were estimated using AP-42, Section 11.12-8 emission factors (June 2006 edition) for Concrete Batch Plants. Only emission factors for toxics listed in IDAPA 58.01.01.585 and 586 were selected from AP-42.

Emission estimates for toxics are calculated to determine if the toxic pollutants resulting from the proposed facility modification will be within acceptable levels as provided for in IDAPA 58.01.01.585 and 586. This rule exempts specific toxics if the change is below the screening emissions level (EL) or if they are below the acceptable ambient concentration (AAC) or acceptable ambient concentration for carcinogens (AACC) as prescribed by this rule.

Table 4-2 below presents the emissions summary for toxic air pollutants as a result of the proposed portable batch plant. Compounds listed in bold signify that the pound per hour emission rate is above the EL for that compound. These compounds are shown to be below the AACs or AACCs in Section 7.0 of this document. Emission sources which were listed in AP-42 were included in the toxics inventory and added to determine totals. Only toxics found to be above the ELs were evaluated in the modeling analysis. A more detailed emissions inventory spreadsheet is included in Appendix B.

TABLE 4-2
TOXIC AIR POLLUTANT
EMISSIONS SUMMARY
CONCRETE BATCH PLANT
INTERSTATE CONCRETE AND ASPHALT CORP.
DOVER PORTABLE

Pollutant	Emissions Total lb/hr	Idaho EL (lb/hr)
Arsenic	**2.29E-06**	1.50E-06
Beryllium	1.96E-07	2.80E-05
Cadmium	1.74E-08	3.70E-06
Chromium	6.06E-06	3.30E-02
Chromium (VI)	**1.34E-06**	5.60E-07
Manganese	2.57E-05	3.33E-01
Nickel	7.46E-06	2.70E-05
Phosphorus	1.91E-05	7.00E-03
Selenium	1.13E-06	1.30E-02

Notes:
Compounds in bold signify that the compound exceeds the allowable EL.
lb/hr Pounds per Hour
EL Emissions Level

5.0 DETERMINE FACILITY'S CLASSIFICATION

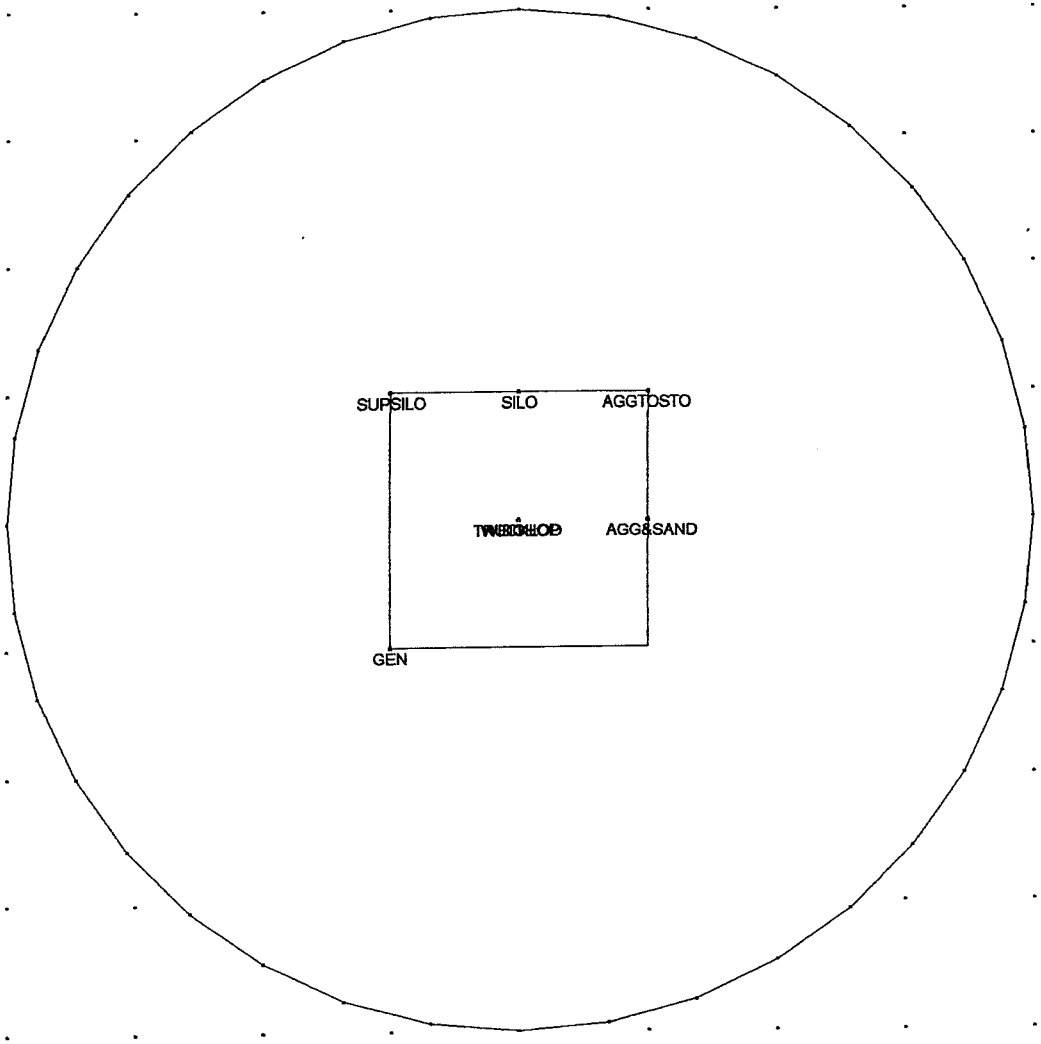
Designated Source: No

Potential to Emit: 0.90 tons per year

Pollutant which defines Potential to Emit: PM_{10} is highest emitting criteria pollutant.

Based on the total emissions for the facility, Interstate Concrete and Asphalt Corp.'s Dover Plant qualifies as a minor source of air pollutants and is therefore eligible for the Pre-Permit Construction Approval Application process.

6.0 SCALED PLOT PLAN



Concrete Batch Plant

F:\Projects\2007\ICA07002\Model\Dovermodel2.BST

Scale: 1" = 15.0 Meters

7.0 AMBIENT IMPACT ASSESSMENT

This section describes the model selected, receptor grid development, and meteorological data used. The refined modeling analysis is being performed to show compliance with the AAC/AACCs and NAAQS as applicable. Appendix C includes a receptor grid printout and the modeling protocol.

7.1 AIR DISPERSION MODEL SELECTION

The EPA approved AERMOD model was chosen for this refined modeling analysis. AERMOD is a steady-state Gaussian plume model that considers simple and complex terrain.

7.2 RECEPTOR GRID SPACING

Receptors were placed along the facility fence line at 10-meter intervals and around the fencline at ten meter intervals out to 50 meters from the fence. A Cartesian receptor grid was developed outside the facility boundary. Receptors were placed at 25-meter spacing for a distance of 200 meters from the facility boundary. Receptors were placed at 50-meter spacing for distances out to 500 meters from the facility boundary.

7.3 RECEPTOR AND SOURCE ELEVATIONS

This facility is a proposed as a portable source. Receptor and source elevations are considered level terrain.

7.4 METEOROLOGICAL DATA

Five years (1988-1992) of meteorological data was used in this modeling analysis. Meteorological data was supplied by Idaho DEQ. Surface and upper air met data is from the Boise Air Terminal in Boise, Idaho.

7.5 MODEL INPUT PARAMETERS

Model input parameters for point sources are listed in Table 7-1, and model inputs for the process fugitive volume sources in Table 7-2.

TABLE 7-1
POINT SOURCE MODEL INPUT PARAMETERS
INTERSTATE CONCRETE AND ASPHALT CORP.
DOVER PORTABLE

Source Name	Source Description	UTM Easting (m)	UTM Northing (m)	Stack Height (ft)	Stack Diameter (ft)	Stack Temp (F)	Flowrate (fps)	PM_{10} Model Emission Rate (lb/hr)
SILO	storage silo filling	0	10	32.81	3.28	-460	0.0033	0.0060
WEIGHOP	weigh hopper loading baghouse	0	0	19.00	3.28	-460	0.0033	0.0150
SUPSILO	cement supplement silo	-10	10	32.81	3.28	-460	0.0033	0.0130

TABLE 7-2
VOLUME SOURCE
MODEL INPUT PARAMETERS
INTERSTATE CONCRETE AND ASPHALT CORP.
DOVER PORTABLE

Source ID	Source Description	Easting (X) (m)	Northing (Y) (m)	Release Height (m)	Horizontal Dimension (m)	Vertical Dimension (m)	PM_10 (lb/hr)
AGG&SAND	Aggregate/sand to/from storage pile	10	0	2.00	4.65	0.70	0.14
AGGTOSTO	Aggregate/sand to elevated storage	10	10	5.00	4.65	4.65	0.07
TRUCKLOD	truck loading	0	0	5.00	4.65	4.65	0.29

7.6 BUILDING DATA

Buildings data was provided by Idaho DEQ as part of their developing policy on batch cement plants. Below are the building parameters input into the model as provided by DEQ.

TABLE 7-3
BUILDING INPUT PARAMETERS
INTERSTATE CONCRETE AND ASPHALT CORP.
DOVER PORTABLE

Building ID	Height (m)	Width (m)	Length (m)	SW Corner UTM Easting (m)	SW Corner UTM Northing (m)
General Building	10	20	20	-10	-10

7.7 PM_{10} MODELING

The PM_{10} modeling analysis was performed to show compliance with the NAAQs for PM_{10}.

7.7.1 PM_{10} MODELING METHODS

The AERMOD model was run using the model inputs listed in Tables 7-1, and 7-2. The model calculated only the 24-hour PM_{10} maximum concentrations. Annual averages were not necessary because the facility has a potential to emit less than 1 ton per year of PM_{10} and is therefore not required per the Idaho modeling guidance.

7.7.2 NATIONAL AMBIENT AIR QUALITY STANDARDS

A source cannot be modified or constructed in an attainment area if the change would cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS).

7.7.3 PM_{10} MODELING RESULTS

Fenceline receptor (-31, 26) was the predicted high 6th high 24-hour high. Table 7-4 presents a comparison of PM_{10} modeling results with the respective NAAQS.

Two copies of all modeling files are provided in electronic format on CD-ROM.

TABLE 7-4
MODELED CONCENTRATIONS AND NAAQS
INTERSTATE CONCRETE AND ASPHALT CORP.
DOVER PORTABLE

Pollutant	Modeled Concentration (µg/m3)	NAAQS Averaging Period	Idaho Background Concentration (µg/m3)	Final Modeled Concentration (µg/m3)	NAAQS (µg/m3)
PM_{10}	65.64*	24-hour	73	139	150

Notes:
PM_{10} Particulate Matter (aerodynamic diameter < 10 microns)
$\mu g/m^3$ Micrograms per Cubic Meter
* High 6th High

7.7.4 PROPOSED SET BACK REQUIREMENT

A circular fenceline of 40 meters in diameter was used in the modeling analysis. The closest source to the fenceline is approximately 26 meters (85 feet). Therefore, a setback requirement of 85 feet from any school, public gathering place, etc. is proposed for this portable facility.

7.8 TAPs MODELING

The Toxic Air Pollutant (TAP) modeling analysis was performed to show compliance with the AAC/AACCs.

7.8.1 TAPs MODELING METHODS

The AERMOD model was run using emission rates calculated in the emission inventory for the Cement Silo, Fly Ash Silo, and Truck Mix Loading. Only pollutants which exceeded their ELs were modeled. Annual concentrations were determined for the remaining pollutants because they were being compared to their AACCs. The model input parameters are presented in Tables 7-1 and 7-2.

7.8.2 COMPARISON TO ACCEPTABLE AMBIENT CONCENTRATIONS

AACs and AACCs were reviewed for all compounds that exceeded their ELs. AACs are based on a 24-hour averaging period and AACCs are based on an annual averaging period. The emissions inventory was developed based on pollutant grouping rather than carcinogen/non-carcinogen groupings. Therefore AACs and AACCs were combined into one table.

As shown below in Table 7-5, all pollutants reviewed are below their respective AAC or AACC.

TABLE 7-5
TOXIC AIR POLLUTANTS
MODELED CONCENTRATIONS
INTERSTATE CONCRETE AND ASPHALT CORP.
DOVER PORTABLE

Pollutant	Modeled 24-hour Concentration ($\mu g/m^3$)	Modeled Annual Concentration ($\mu g/m^3$)	Idaho AAC/ AACC ($\mu g/m^3$)
Arsenic	-	9.00E-05	2.30E-04
Chromium (VI)	-	5.00E-05	8.30E-05

Notes:
$\mu g/m^3$ Micrograms per Cubic Meter

8.0 CONCLUSIONS

The proposed installation of Interstate Concrete and Asphalt Company's 150 cubic yard per hour portable concrete batch plant can be allowed in accordance with Idaho's Air Quality Regulations. Interstate Concrete and Asphalt Corp. – Dover Plant is a minor source, meets the toxic air pollutant AACs/AACCs, and will not cause or contribute to a violation of the NAAQS.

APPENDIX A

APPLICATION FORMS

DE/AFS/SF

Concrete Batch Plant **Form CBP**

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline–1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 2
02/15/07

Please see instructions on page 4 before filling out the form.

GENERAL INFORMATION

Company Name:	Interstate Concrete and Asphalt Company		
Facility Name:	Dover Portable Plant	**Facility ID No:**	
Brief Project Description:	Portable Concrete Batch Plant		
Mailing Address:	845 West Kathleen Ave.		
City:	Coeur d'Alene	**State:**	Idaho
Zip Code:	83814	**County:**	
General Nature of Business & Products:	Asphalt and Batch Concrete		

Contact Name, Title:	Corky Witherwax		
Phone:	(208) 765-1144	**Cell:**	
Email:	cwitherwax@oldcastlematerials.com		

Owner or Responsible Official Name, Title:	C. Patrick McFarlane, President
Phone:	(208) 765-1144
Email:	

Proposed Initial Plant Location:	SE1/4, SW1/4, Section 25, Township 57 North, Range 3 East, Bonner County		
Nearest City:	Dover	**Estimated Startup Date:**	Spring '07
County:	Bonner		

Reason for Application:	☒ Permit to construct a new source ☐ Permit to operate an existing unpermitted source ☐ Permit to modify/revise an existing permitted source (identify the permit below) Permit No.: Issue Date: Facility ID:
☒ Check here to indicate you would like to review a draft permit prior to final issuance.	
Comments:	

CONCRETE BATCH PLANT INFORMATION

1. Concrete Batch Plant

Manufacturer:	McNeilus	**Model:**	Batch Master 12
Manufacture Date:			
Maximum Hourly Throughput:	150 (cy/hour)		
Maximum Daily Throughput:	1800 (cy/day)		
Maximum Annual Throughput:	(cy/year)		
Requested Annual Throughput:	250,000 (cy/year)		

2a. Cement Storage Silo Baghouse No. 1

Manufacturer:	McNeilus SFV170 (2)	**Model:**	
Stack Height from Ground:	52 (ft)	**Exit Air Flow Rate:**	(acfm)
Stack Inside Diameter:	(ft)	*** PM_{10} Control Efficiency:**	(%)
*** Manufacturer Grain Loading Guarantee:**			
* Attach manufacturer's PM_{10} control efficiency if available.			

2b. Cement Storage Silo Baghouse No. 2

Manufacturer:	McNeilus SFV170 (2)	**Model:**	
Stack Height from Ground:	52 (ft)	**Exit Air Flow Rate:**	(acfm)
Stack Inside Diameter:	(ft)	*** PM_{10} Control Efficiency:**	(%)
*** Manufacturer Grain Loading Guarantee:**			
* Attach manufacturer's PM_{10} control efficiency if available.			

2c. Cement Supplement (such as flyash) Storage Silo Baghouse No. 1

Manufacturer:	McNelius	**Model:**	
Stack Height from Ground:	(ft)	**Exit Air Flow Rate:**	(acfm)
Stack Inside Diameter:	(ft)	*** PM_{10} Control Efficiency:**	(%)
*** Manufacturer Grain Loading Guarantee:**			
* Attach manufacturer's PM_{10} control efficiency if available.			

2d. Cement Supplement (such as flyash) Storage Silo Baghouse No. 2

Manufacturer:	McNelius	**Model:**	
Stack Height from Ground:	(ft)	**Exit Air Flow Rate:**	(acfm)
Stack Inside Diameter:	(ft)	*** PM_{10} Control Efficiency:**	(%)
*** Manufacturer Grain Loading Guarantee:**			
* Attach manufacturer's PM_{10} control efficiency if available.			

3. Weigh Batcher Baghouse(s)

Manufacturer:	McNelius	**Model:**	BFV15
Stack Height from Ground:	19 (ft)	**Exit Air Flow Rate:**	64 (acfm)
Stack Inside Diameter:	(ft)	*** PM_{10} Control Efficiency:**	99.6 (%)
*** Manufacturer Grain Loading Guarantee:**			
* Attach manufacturer's PM_{10} control efficiency if available.			

ELECTRICAL GENERATOR SET INFORMATION (IF APPLICABLE)

Manufacturer:		**Model:**	
Maximum Rated Capacity:	☐ Hp ☐ kW		
Fuel Type:	☐ Gasoline ☐ Diesel ☐ Natural Gas ☐ Propane		
Maximum Fuel Usage Rate:	☐ gal./hr. ☐ cfh		
Maximum Daily Hrs. of Operations:	(hours/day)		
Maximum Annual Hrs. of Operations:	(hours/year)		
Stack Parameters:	Stack Height from Ground (ft): _____	Stack Exhaust Flow Rate (acfm): _____	
	Stack Inside Diameter (ft): _____	Stack Exhaust Gas Temperature (°F): _____	

ADDITIONAL GENERATOR (if applicable)

Manufacturer:		**Model:**	
Maximum Rated Capacity:	☐ Hp ☐ kW		
Fuel Type:	☐ Gasoline ☐ Diesel ☐ Natural Gas ☐ Propane		
Maximum Fuel Usage Rate:	☐ gal./hr. ☐ cfh		
Maximum Daily Hrs. of Operations:	(hours/day)		
Maximum Annual Hrs. of Operations:	(hours/year)		
Stack Parameters:	Stack Height from Ground (ft): _____	Stack Exhaust Flow Rate (acfm): _____	
	Stack Inside Diameter (ft): _____	Stack Exhaust Gas Temperature (°F): _____	

☒ **$1,000 PTC application fee enclosed**

Certification of Truth, Accuracy, and Completeness (by Responsible Official)
I hereby certify that based on information and belief formed after reasonable inquiry, the statements and information contained in this and any attached and/or referenced document(s) are true, accurate, and complete in accordance with IDAPA 58.01.01.123-124.

C. Patrick McFarlane — *Responsible Official Signature*

President — *Responsible Official Title*

3/12/07 — *Date*

C. Patrick McFarlane — *Print or Type Responsible Official Name*

APPENDIX B

EMISSION INVENTORY SPREADSHEETS

Interstate Concrete and Asphalt Company

Potential Emissions

Batch Concrete Plant - Dover Plant

February 19, 2007

Maximum Proposed Production

Concrete Production (yd3/hr)	150
Concrete Production (yd3/hr) Max.	1,314,000
Concrete Production (yd3/yr) restricted	250,000
Concrete Production (yd3/day) restricted	1800

Typical Concrete Makeup per yd3

	lbs	% of mix	ton/hr
Aggregate	1,865	46.3%	139.9
Sand	1,428	35.5%	107.1
Cement	491	12.2%	36.8
Fly Ash	73	1.8%	5.5
Water	167	4.2%	12.5
Total	4,024		301.8

Emissions Source	Percent Control	Uncontrolled PM_{10} Emission Factor (lb/ton)	Uncontrolled PM_{10} Emission Factor (lb/yd3)	Controlled PM_{10} Emission Factor (lb/yd3)	Emission Factor Reference	Controlled PM_{10} Potential Emissions (lb/hr)	Controlled PM_{10} Potential Emissions (tons/yr)
Aggregate Dump to Ground	75%	3.27E-03	3.05E-03	7.63E-04	AP-42, 13.2.4	0.057	0.095
Sand Dump to Ground	75%	9.86E-04	7.04E-04	1.76E-04	AP-42, 13.2.4	0.013	0.022
Aggregate Dump to Conveyor	75%	3.27E-03	3.05E-03	7.63E-04	AP-42, 13.2.4	0.057	0.095
Sand Dump to Conveyor	75%	9.86E-04	7.04E-04	1.76E-04	AP-42, 13.2.4	0.013	0.022
Aggregate Conveyor to Elevated Storage	75%	3.27E-03	3.05E-03	7.63E-04	AP-42, 13.2.4	0.057	0.095
Sand Conveyor to Elevated Storage	75%	9.86E-04	7.04E-04	1.76E-04	AP-42, 13.2.4	0.013	0.022
Cement Silo Loading		0.00034	8.35E-05	8.35E-05	AP-42, 11.12-2 (6/06)	0.006	0.010
Weigh Hopper Loading	95%	0.00240	3.95E-03	1.98E-04	AP-42, 11.12-2 (6/06)	0.015	0.025
Fly Ash Silo Unloading		0.00490	1.79E-04	1.79E-04	AP-42, 11.12-2 (6/06)	0.013	0.022
Truck mix loading	95%	0.27800	7.84E-02	3.92E-03	AP-42, 11.12-2 (6/06)	0.294	0.490
Totals:							0.90

Notes:

yd^3/hr	Cubic yards of concrete produced per hour
lb/yd3	Pounds per cubic yard
PM	Particulate Matter
PM_{10}	Particulate Matter with an aerodynamic diameter less than 10 microns

Aggregate and Sand Handling:

$E = k * (0.0032)[(U/5)^{1.3} / (M/2)^{1.4}]$ (AP-42, Section 13.2.4)

where: E = Emissions rate in pounds of PM10 per ton of material handled
k = particle size multiplier for PM10 (0.35)
U = Wind speed (miles per hour)
M = Material moisture content (percent weight)

$E_{aggregate}$ =	0.00327 lb/ton agg	U =	10
E_{sand} =	0.00099 lb/ton sand	$M_{aggregate}$ =	1.77
		M_{sand} =	4.17

Note: Aggregate and Sand handling controlled by 75% water sprays.

Interstate Concrete and Asphalt Company

Potential Emissions

Batch Concrete Plant - Dover Plant

2/19/07

		Typical Concrete Makeup per yd3	lbs	% of mix
Maximum Proposed Production				
Concrete Production (yd3/hr)	150	Aggregate	1665	46.35%
Concrete Production (yd3/hr) Max.	1,314,000	Sand	1428	35.49%
Concrete Production (yd3/yr) restricted	250,000	Cement	491	12.20%
Concrete Production (yd3/day) restricted	1,800	Fly Ash	73	1.81%
		Water	167	4.15%
		Total	4024	

Pollution Control Equipment: Baghouse
AP-42 Edition: Jun-06

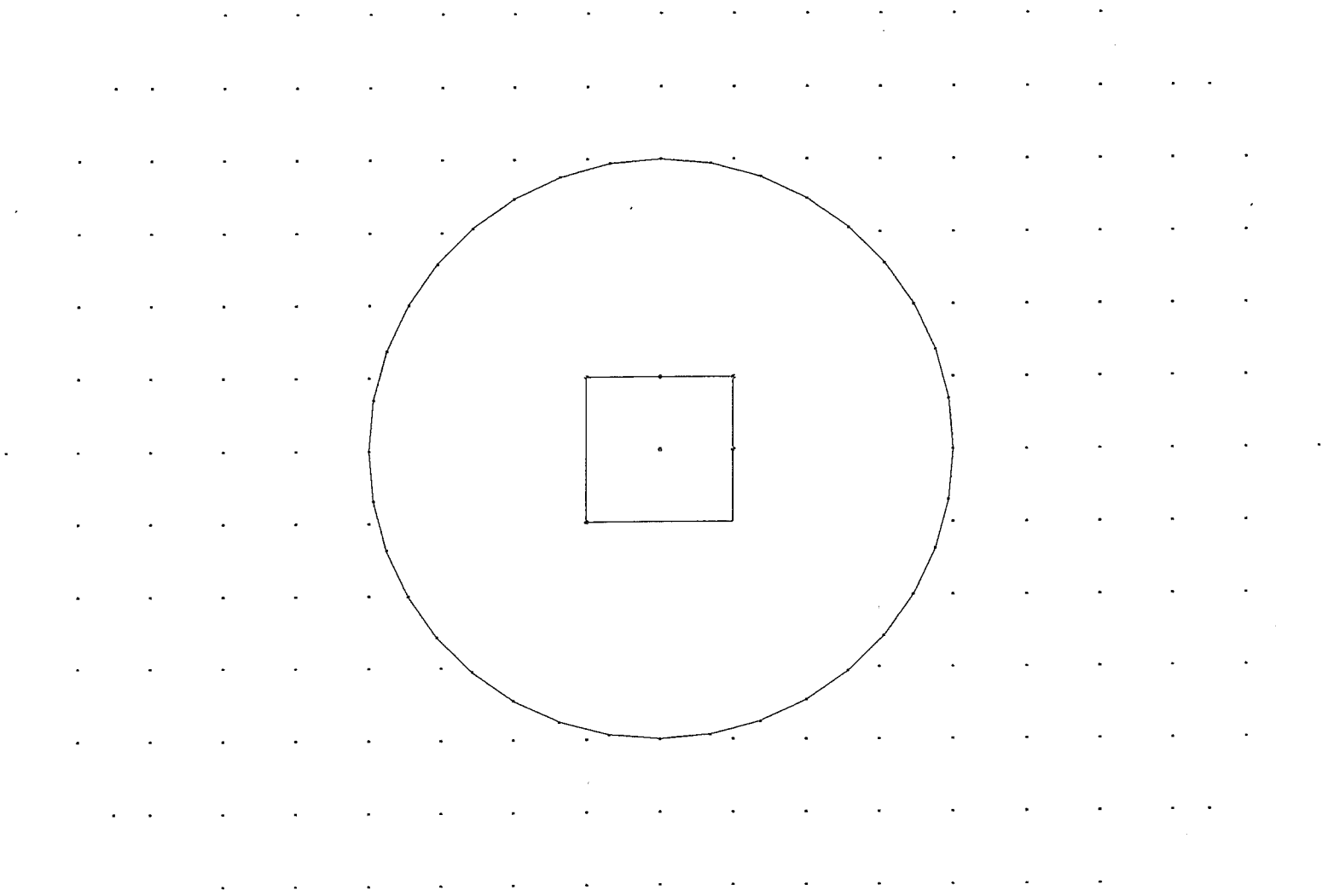
Pollutant	Cement Silo Filling Emission Factor (lb/ton)	Cement Silo Filling Emission Factor (lb/yd3)	Truck Filling Uncontrolled Emission Factor (lb/ton)	Truck Filling Controlled * Emission Factor (lb/yd3)	Flyash Filling Emission Factor (lb/ton)	Flyash Filling Emission Factor (lb/yd3)	Emission Factor Reference	Silo Filling Emissions lb/hr	Truck Filling Emissions lb/hr	Flyash Filling Emissions lb/hr	Total lb/hr	Idaho EL (lb/hr)	Modeled 24-hour Concentration (µg/m3)	Modeled Annual Concentration (µg/m3)	Idaho AAC (mg/m3)	Idaho AAC/ AACC (µg/m3)
Arsenic	4.24E-09	1.04E-09	3.04E-06	4.29E-08	1.00E-06	3.65E-08	AP-42, Table 11.12-8 (6/06)	2.97E-08	1.22E-06	1.04E-06	2.29E-06	1.50E-06	-	9.00E-05		2.30E-04
Beryllium	4.86E-10	1.19E-10	2.44E-07	3.44E-09	9.04E-08	3.30E-09	AP-42, Table 11.12-8 (6/06)	3.41E-09	9.82E-08	9.42E-08	1.96E-07	2.80E-05	-	-		4.20E-03
Cadmium	4.86E-10	1.19E-10	3.42E-08	4.82E-10	1.98E-10	7.23E-12	AP-42, Table 11.12-8 (6/06)	3.41E-09	1.38E-08	2.06E-10	1.74E-08	3.70E-06	-	-		5.60E-04
Chromium	2.90E-08	7.12E-09	1.14E-05	1.61E-07	1.22E-06	4.45E-08	AP-42, Table 11.12-8 (6/06)	2.03E-07	4.59E-06	1.27E-06	6.06E-06	3.30E-02	-	-	2.50E-02	25
Chromium (VI)	5.80E-09	1.42E-09	2.28E-06	3.21E-08	3.66E-07	1.34E-08	DEQ Guidance	4.06E-08	9.17E-07	3.81E-07	1.34E-06	5.60E-07	-	5.00E-05		8.30E-05
Manganese	1.17E-07	2.87E-08	6.12E-05	8.63E-07	2.56E-07	9.34E-09	AP-42, Table 11.12-8 (6/06)	8.20E-07	2.46E-05	2.67E-07	2.57E-05	3.33E-01	-	-	2.50E-01	250
Nickel	4.18E-08	1.03E-08	1.19E-05	1.68E-07	2.28E-06	8.32E-08	AP-42, Table 11.12-8 (6/06)	2.93E-07	4.79E-06	2.38E-06	7.46E-06	2.70E-05	-	-		4.20E-03
Phosphorus	ND	ND	3.84E-05	5.41E-07	3.54E-06	1.29E-07	AP-42, Table 11.12-8 (6/06)	ND	1.55E-05	3.69E-06	1.91E-05	7.00E-03	-	-	5.00E-03	5
Selenium	ND	ND	2.62E-06	3.69E-08	7.24E-08	2.64E-09	AP-42, Table 11.12-8 (6/06)	ND	1.05E-06	7.54E-08	1.13E-06	1.30E-02	-	-	1.00E-02	10

* Controlled 95%
lb/hr Pounds per Hour
mg/m^3 Milligrams per Cubic Meter
$\mu g/m^3$ Micrograms per Cubic Meter
EL Emissions Level
AAC Acceptable Ambient Concentration
AACC Acceptable Ambient Concentration for Carcinogens

APPENDIX C

RECEPTOR GRID PRINTOUT AND MODELING PROTOCOL

Interstate Concrete and Asphalt Company - Fenceline Receptors

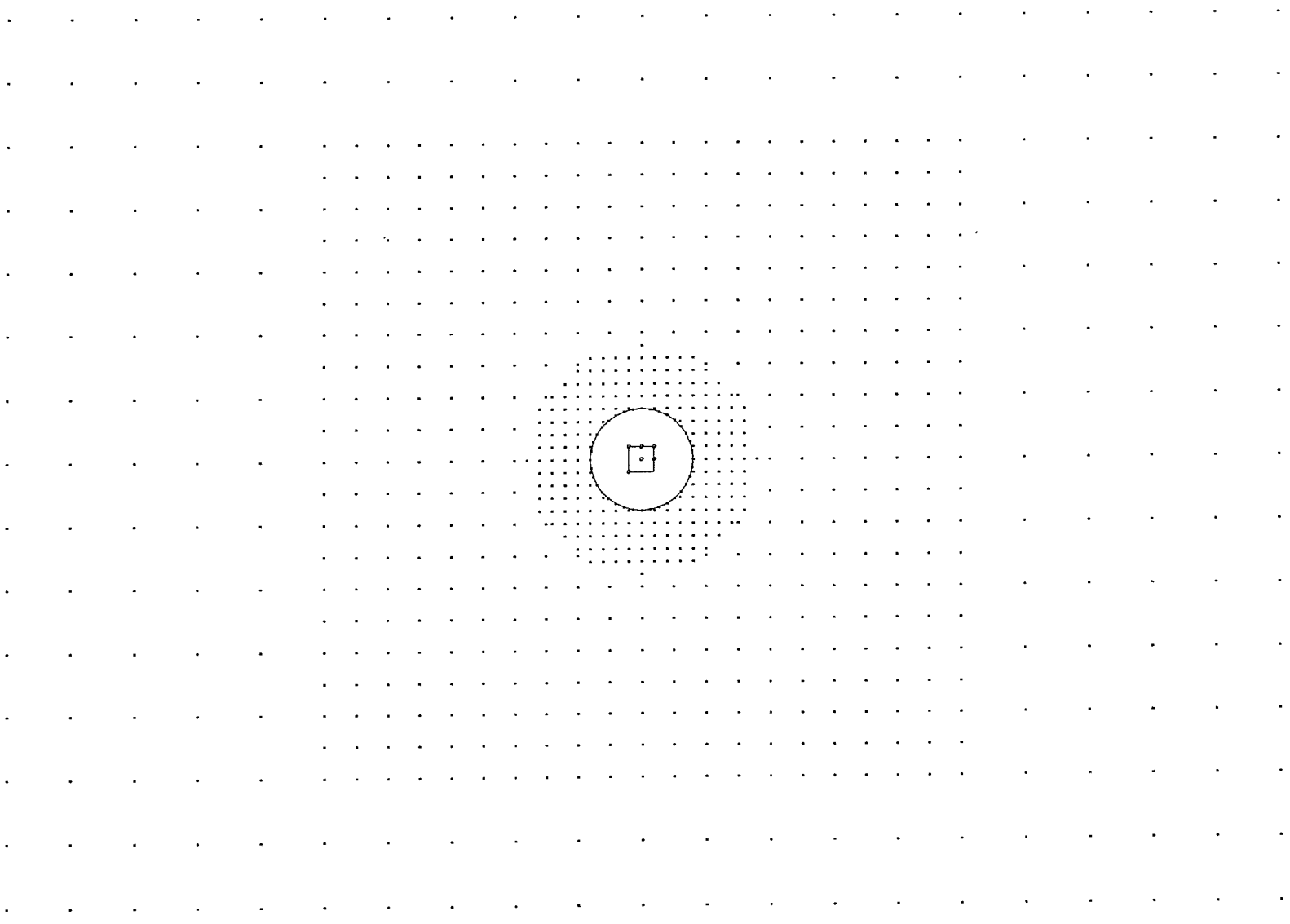


Concrete Batch Plant

F:\Projects\2007\ICA07002\Model\Dovermodel2.BST

Scale: 1" = 22.5 Meters

Interstate Concrete and Asphalt Company - Receptors 200 meters out

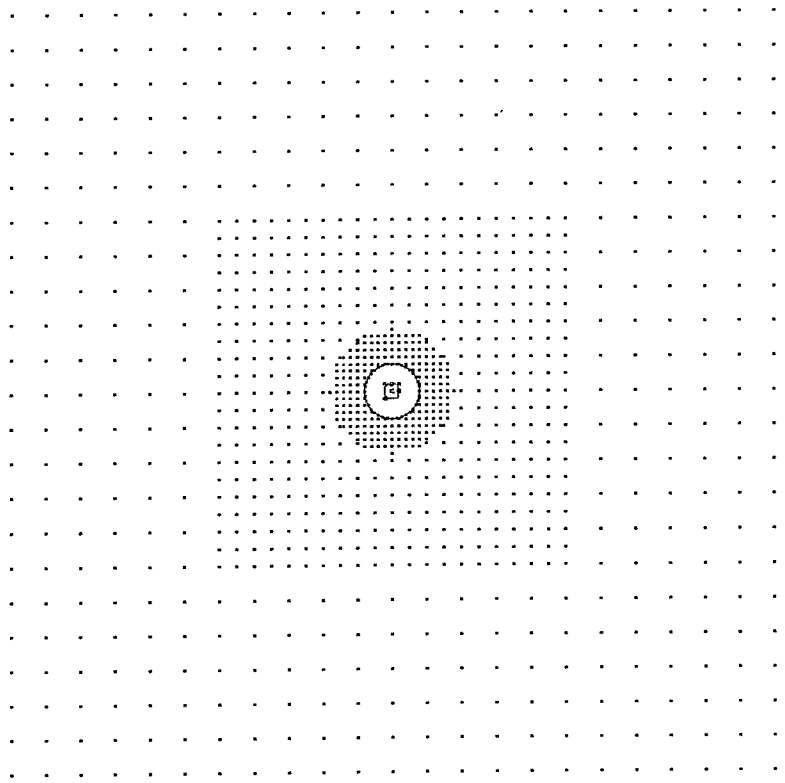


Concrete Batch Plant

F:\Projects\2007\ICA07002\Model\Dovermodel2.BST

Scale: 1" = 123.5 Meters

Interstate Concrete and Asphalt Company - Receptors 500 meters out



Concrete Batch Plant

F:\Projects\2007\ICA07002\Model\Dovermodel2.BST

Scale: 1" = 277.8 Meters

Mark Peterson

From: Kevin.Schilling@deq.idaho.gov
Sent: Wednesday, February 21, 2007 9:29 AM
To: mark@aspence.net
Subject: RE: ICA Modeling Protocol

Mark,

I have reviewed your revised protocol and have determined the proposed methods and data are acceptable. When determining the setback, please use the distance from the nearest emissions source to the receptor location having the maximum 6th highest modeled PM10 value for the 24-hour standard and the maximum 1st high modeled PM10 value for the annual standard, whichever is larger.

Thank you,

Kevin Schilling
Stationary Source Air Modeling Coordinator
Idaho Department of Environmental Quality
208 373-0112

From: Mark Peterson [mailto:mark@aspence.net]
Sent: Tuesday, February 20, 2007 3:35 PM
To: Kevin Schilling
Subject: ICA Modeling Protocol

Kevin,

Here is our revised protocol. Please let me know if you need anything else.

Thanks,
Mark

Air Dispersion Modeling Protocol – Concrete Batch Plant

Proposed Project: Interstate Concrete and Asphalt is proposing a portable 150 yd^3/hr batch concrete facility. Interstate proposes limits of1,800 yd^3/day and 250,000 yd^3/yr of concrete. This plant will be known as the Dover Plant.
Location: The initial location will be near Dover, Idaho in Bonner County.

1) An emissions inventory (EI) based on the plant's capacity and proposed maximum daily and annual operations will be included with the application, and will comply with the following:

   a. Emissions will be calculated using AP-42 emission factors and good engineering judgment.
   b. Fugitive emissions sources will be included in the EI, except for emissions resulting from vehicle traffic and wind erosion from storage piles.
   c. The level of emissions control assumed for each source will be clearly specified.
   d. Cr+6 will be presumed to comprise 20% of the total chromium emissions from cement silo filling, and 30% of the total chromium emissions from cement

supplement (flyash) silo filling.

2) The proposed project will meet all of the criteria specified below, and Interstate Concrete and Asphalt agrees to accept permit conditions requiring continuing compliance with the physical parameters and setback distance(s) established by the refined modeling analysis. Interstate Concrete and Asphalt is requesting that the DEQ generic model results (with adjustments made for the lower emission rates and run on Boise Met data supplied by DEQ) be used to demonstrate preconstruction compliance with NAAQS and TAPs for this project. An additional modeling analysis will be submitted for this project to determine the set back requirement. Set back will be determined based on a circular fenceline of a diameter sufficient to meet the standards. The set back will be proposed as the distance from the nearest source to the fenceline location nearest the high receptor.

Table 1. CRITERIA FOR USING DEQ's CONCRETE BATCH PLANT GENERIC MODELING RESULTS FOR AIR IMPACT ANALYSES

Parameter	Criteria
Concrete batch plant type	Truck mix (redi-mix) plant
Operation in any PM_{10} nonattainment area.	Not proposed.
Maximum daily concrete production	1,800 yd^3/day
Maximum annual concrete production	250,000 yd^3/yr
Minimum stack height for cement and supplement storage silo baghouse(s)	10 meters (32.8 ft)
Minimum stack height for weigh hopper loading baghouse (s)	10 meters (32.8 ft)
Minimum distance from nearest edge of any emissions source to the ambient air boundary	Based on Model Results
Minimum distance from nearest edge of any emissions source to any other source of emissions, including another concrete batch plant, hot mix asphalt plant, or rock crushing plant.	200 meters (656 ft)
Minimum control of truck-mix loadout source	95% Control e.g., Boot/shroud, water sprays, or baghouse/cartridge filter
Minimum control of weigh hopper loading	95% Control e.g., boot/shroud, water sprays, or baghouse/cartridge filter
Minimum control of fugitive emissions from aggregate and sand transfer point sources	75% Control e.g., water sprays, shrouds, or sand/aggregate is wet on an as-received basis, and used before significantly drying out.
Presence of a generator	No generator.